

ABSTRACT OF THE DISCLOSURE

1           An apparatus is disclosed for endoscopic  
application of surgical staples adapted to attach surgical  
mesh to body tissue in laparoscopic hernia surgery. The  
5   apparatus includes a frame, and a generally elongated  
endoscopic section connected to the frame and extending  
distally therefrom. A staple storage cartridge is removably  
supported on a pivotal support system at the distal end  
portion of the endoscopic section with each staple being  
10   configured and adapted to attach the mesh to the body  
tissue. An elongated pusher system formed of several  
assembled components and extending from the frame to the  
endoscopic section is provided for individually advancing at  
least one staple at a time distally for positioning adjacent  
15   the surgical mesh and the body tissue. The pusher system  
also includes a trigger system to actuate the pusher. The  
trigger system is provided with perceptible tactile sensing  
means to indicate when the legs of the staple being advanced  
are exposed so as to be visible to the user for positioning  
20   and orientation purposes. Anvil means provides for  
individually closing each staple to encompass at least a  
portion of the surgical mesh and to penetrate the body  
tissue in a manner to attach the portion of the mesh to the  
body tissue. Projecting distally of the cartridge support  
25   system is a pair of legs which are dimensioned and  
configured to engage the staple during closure to prevent  
unwanted roll or deformation outside of the plane of the  
staple.

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